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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Francois Rey

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EXAMINER

RAMAN, USHA

ART UNIT

PAPER NUMBER

2623

NOTIFICATION DATE

DELIVERY MODE

04/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/786,778	Applicant(s) REY ET AL.	
	Examiner USHA RAMAN	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 10-17, 23-26, 28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-17, 23-26, 28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 9th, 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 14, 26 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4, 10-15, 17, 23-26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over DVB Document A038, "Specification for Service Information (SI) in Digital Video Broadcasting (DVB) Systems" published in March 1998 in view of Metz et al. (US Pat. 5,978,855).

With regards to claims 1, 14, 26 and 28, the A038 document discloses a method of transmitting an application data, in a plurality of services in a digital

transport stream, wherein a service comprises at least one application (audio, video, data components, see fig. 1 on page 6.), providing an application data table (BAT sub table, wherein each sub table identifies a list of services for the bouquet *bouquet_id*) containing information regarding at least one application carried by each of the plurality of services within the transport stream (see pages 6, 8 and 15). The BAT can further include: a service list descriptor (see table 12 page 26) comprising an identification of all services provided by the bouquet. The EIT associated with that service further provides information regarding all the events contained within each service. See 5.2.4 in pages 19-21. The A038 accordingly shows the application data table comprising a service descriptor identifying at least one application carried by each service and an application description comprising a plurality of characteristics of the application. Furthermore, when changing between a plurality of service IDs (e.g. changing channels), the events associated with that service ID must be downloaded from the information provided in EIT for presentation. The system accordingly anticipates the steps of downloading at least one application (i.e. event) when changing service channels, wherein the application is obtained from information indicated in the EIT associated with the new service channel. The A038 document fails to disclose that at least one application is maintained when changing to one of the plurality of services that does not contain the at least one application.

In an analogous art, Metz discloses a method of downloading applications from a broadcast channel (see column 5, lines 32-36), wherein all the data

pertaining to the application are downloaded and stored in memory (column 22, lines 20-30). Accordingly downloading such an application necessitates tuning to the channel for downloading the data packets associated with the application.

Furthermore, Metz discloses an example of such an application maybe in the form of a non-resident application that communicates with the resident software to provide additional functions such as emulating channel changing functions of a remote control through a keyboard (see column 22, lines 40-49). Furthermore, Metz discloses that non-resident applications are maintained in memory until the resident software makes a call to terminate the non-resident application and release its resources (see column 41, lines 58-64). Accordingly Metz discloses a scenario where a non-resident application is downloaded in a channel, stored in memory, that enables user to change channel and is "maintained" in the memory until the resident application terminates the non-resident application, upon which it is deleted from the memory. It can therefore be seen that, certain applications that are desirable to be maintained in memory even after channel change.

All the claimed elements, including the step of maintaining an application upon channel change, were known in the prior art and one ordinary skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skilled in the art at the time of the invention. One would be motivated to use the teachings of Metz in order to maintain certain non-resident

applications that are not related to any particular channel in memory that provide enhanced functions.

With further regards to claim 28, the A038 document discloses an IRD to demultiplex and decode the various SI streams and therefore comprises means for controlling the downloading and maintenance of applications in dependence on the information contained within the application data table (e.g. version updates) as discussed above in claim 1. Metz additionally disclose the step of storing a program map (i.e. system information tables) table in memory (see column 32, lines 8-17, column 35, lines 3-22). Accordingly, it would have been obvious to one of ordinary skill in the art to store system information tables including the application data tables in view of Metz in order to determine program stream locations for tuning to the requested service.

With further regards to claims 14 and 26, since the SI data is transmitted in a digital television, it is inherent that there is a transmission apparatus for transmit the SI data (see page 10).

With regards to claims 2, and 15 the service list descriptor is transport packet having a predetermined packet ID (0x0011) value associated with the presence of the application data table within the packet (see pages 11 and 15).

With regards to claims 4, 17, each service further comprises a program map table (PMT) giving access to all applications carried by this service, the program map table itself comprising information regarding at least one application carried by this service. See page 8.

With regards to claims 10, and 23, the method further comprises the steps of providing a plurality of the application data tables (i.e. plurality of BAT sub tables), each application data table (BAT sub table) containing information regarding applications contained within a bouquet of services (each BAT sub table identifies a list of services for bouquet *bouquet_id*, see pages 6, 8, and 15).

With regards to claims 11, and 24, each application data table (BAT sub table) is transported in one of a table and a section within a transport packet, each application data table being associated with one of a table and section having one of a characteristic table ID (0x4A) and a characteristic table ID extension value (*bouquet_id*). See pages 15-17.

With regards to claim 12, the SI data are received in a digital television system. See page 4.

With regards to claims 13, and 25 the digital transport stream conforms to the MPEG standard. See page 10.

5. Claims 3, 16, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over DVB Document A038, "Specification for Service Information (SI) in Digital Video Broadcasting (DVB) Systems" published in March 1998 in view of Metz et al. (US Pat. 5,978,855) and further in view of Akins (US Pat. 6,526,508).

With regards to claims 3, 16, and 30, the Metz discloses the need for maintaining operator integrity when a plurality of software downloads are being offered over a network (see column 4, lines 56-52). The modified system however document is

silent on the step of electronically signing the application data table so as to permit a decoder to verify an application data table as originating from a known operator.

Akins teaches the need for additional security measurements in downloading service related information to ensure that a received data is received from legitimate source. See column 5, lines 41-45 and lines 56-59.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method in view of Akins' teachings to provide authentication means with the service information tables so that the receiver can authenticate the data prior to downloading it.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liao et al. (US Pat. 6,360,195) discloses a system for downloading a plurality of different types of interactive application from transport stream, wherein certain types of applications are maintained in set top box after channel changes.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UR

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2623